Small Business Innovation Research/Small Business Tech Transfer

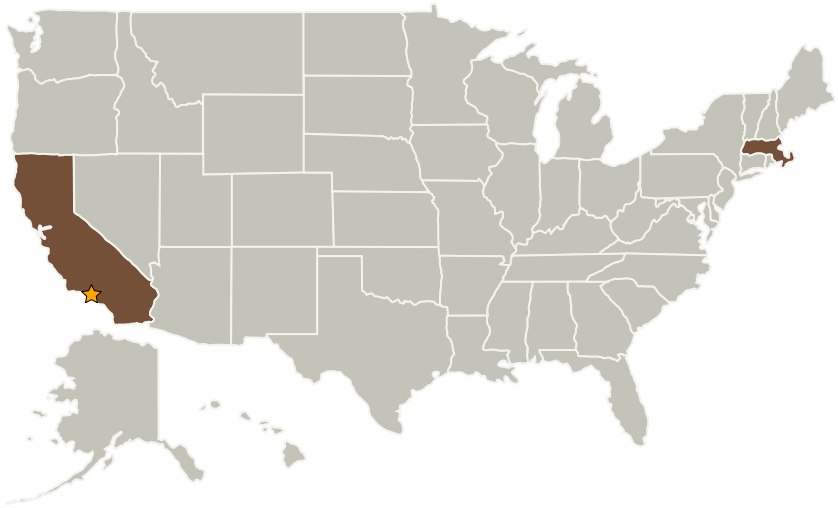
Non-Flammable, High Voltage Electrolytes for Lithium Ion Batteries, Phase I

Completed Technology Project (2009 - 2009)

Project Introduction

An electrolyte will be demonstrated for lithium ion batteries with increased range of charge and discharge voltages and with improved fire safety. Experimental electrolytes will be prepared in the anhydrous state and compared with existing commercial electrolyte formulations for conductivity, voltage limits and flammability. Coin cells will be used to provide proof of concept and a prismatic cell design prepared to meet NASA mission goals for the Altair ascent stage and human safety for EVA suits.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Jet Propulsion Laboratory(JPL)	Lead Organization	NASA Center	Pasadena, California
Giner Electrochemical Systems, LLC	Supporting Organization	Industry	Newton, Massachusetts

Primary U.S. Work Locations	
California	Massachusetts

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Jet Propulsion Laboratory (JPL)

Responsible Program:

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
  - TX03.2 Energy Storage
    - TX03.2.1 Electrochemical: Batteries